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(11) **CA 2 321 956**

(13) **A1**

(40) 30.03.2001

(43) 30.03.2001

(12)

(21) **2 321 956**

(51) Int. Cl. 7: **A23F 3/14, A23F 3/40**

(22) **02.10.2000**

(30) **60/156865 US 30.09.1999**

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(54) **SIROP POUR BOISSON ET METHODE DE PREPARATION D'UNE BOISSON A SAVEUR DE THE**
(54) **BEVERAGE SYRUP AND METHOD FOR MAKING A TEA FLAVORED BEVERAGE**

(57)

This invention is directed to a beverage syrup
comprising tea, tea flavor or both. The beverage syrup
does not require refrigeration, and may be used to make
a variety of tea flavored beverages.

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C I P O
CANADIAN INTELLECTUAL
PROPERTY OFFICE

(12) (19) (CA) **Demande-Application**

(21) (A1) **2,321,956**

(22) 2000/10/02

(43) 2001/03/30

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- (51) Int.Cl.⁷ A23F 3/14, A23F 3/40
- (30) 1999/09/30 (60/156865) US
- (54) SIROP POUR BOISSON ET METHODE DE PREPARATION
D'UNE BOISSON A SAVEUR DE THE
- (54) BEVERAGE SYRUP AND METHOD FOR MAKING A TEA
FLAVORED BEVERAGE

(57) This invention is directed to a beverage syrup comprising tea, tea flavor or both. The beverage syrup does not require refrigeration, and may be used to make a variety of tea flavored beverages.



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ABSTRACT OF THE DISCLOSURE

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This invention is directed to a beverage syrup comprising tea, tea flavor or both. The beverage syrup does not require refrigeration, and may be used to make a variety of tea flavored beverages.

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**BEVERAGE SYRUP AND METHOD FOR
MAKING A TEA FLAVORED BEVERAGE**10 **Related Applications**

This application claims priority to provisional application 60/156,865, the disclosure of which is incorporated herein by reference.

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Field of the Invention

This invention is directed to a beverage syrup. More particularly, the invention is directed to a beverage syrup that comprises tea, tea flavor or both, and the beverage syrup may further comprise flavor additives. Also, the present invention is directed to a tea flavored beverage that comprises the above-described beverage syrup, as well as a method for making the same.

25 **Background of the Invention**

Both caffeinated and decaffeinated beverages have become extremely popular thirst quenchers. Such beverages may be served either hot or cold, and they may be purchased at a variety of commercial establishments, such as fast food establishments.

Typically, the caffeinated and decaffeinated beverages are those which comprise coffee. Such beverages can be difficult to make since it is not always easy to consistently add the ingredients used to make them. Also, beverages comprising coffee are not always desired because coffee typically comprises high

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- 5 levels of alkaloids (e.g., caffeine) and can have a strong flavor that is not accepted by many.

10 It is of increasing interest to develop beverages that may be made consistently the same and that do not have the strong flavor of coffee. This invention, therefore, is directed to a beverage syrup that comprises tea, tea flavor or both, and the beverage syrup may further comprise flavor additives. Additionally, the present invention is directed to a tea flavored beverage comprising the above-described beverage syrup. As used herein, tea is defined to include liquid and powdered tea, tea flavor is defined to include natural and 15 artificial tea flavor, and flavor additives are defined to include flavor agglomerates, spray dried flavors, freeze dried flavors and flavor granules.

Background References

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Efforts have been described for making tea containing beverages. In U.S. Patent No. 5,895,681, the disclosure of which is incorporated herein by reference, tea containing beverages and a method for preserving the same are described.

25

Other efforts have been disclosed for making beverage compositions. In WO 99/30576, the disclosure of which is incorporated herein by reference, beverage compositions with a sweetener are described.

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Still other efforts have been disclosed for making beverage compositions. In WO 99/35921, the disclosure of which is incorporated herein by reference, a physical endurance drink is described.

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- 5 Finally, in U.S. Patent No. 5,433,965, the disclosure of which in incorporated herein by reference, beverage compositions comprising juice are described.

10 Summary of the Invention

 In a first embodiment, the present invention is directed to a beverage syrup comprising:

- 15 (a) at least about 30% to about 85% by weight high fructose corn syrup;
 (b) at least about 1% to about 70% by weight water; and
 (c) at least one additive selected from the group consisting of tea, tea flavor and a mixture of tea and tea flavor, wherein the beverage
20 syrup does not require refrigeration.

 In a second embodiment, the present invention is directed to a beverage syrup comprising:

- 25 (a) tea, tea flavor or both; and
 (b) flavor additives, wherein the beverage syrup does not require refrigeration.

 In a third embodiment, the present invention is directed to a method for
30 making a beverage comprising tea, tea flavor or both, the method comprising the steps of:

- (a) dispensing a syrup from a dispensing device, the syrup comprising tea, tea flavor or both; and

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5 (b) adding water to the syrup,

wherein the dispensing device can be set to dispense a set amount of syrup.

10 In a fourth embodiment, this invention is directed to a beverage syrup that does not require refrigeration, the beverage syrup comprising tea, tea flavor or both.

In a fifth embodiment, the present invention is directed to a method for making a beverage comprising the steps of:

15

- (a) dispensing a syrup from a dispensing device, the syrup comprising flavor; and
- (b) adding water to the syrup.

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Brief Description of the Figures

The subject matter which is regarded as the invention is particularly pointed out and distinctly claimed in the concluding portion of the specification.

25 The invention may be further understood by reference to the following description taken in conjunction with the accompanying drawing figures in which:

Figs. 1 a-c depict the dispensing devices that may be used in dispensing the beverage syrup of this invention.

30

Figs. 2 a-c depict various bars that may be used to distribute or sell the products made with the inventions disclosed herein, and the figures show the dispensing devices of Figure 1.

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- 5 Figs. 3 a-c depict other bar arrangements that may be used to distribute or sell the products made with the inventions disclosed herein.

Detailed Description of the Preferred Embodiments

10

There is no limitation with respect to the high fructose corn syrup that may be used in this invention other than that the corn syrup is of the type that will result in a beverage syrup that can be easily mixed with, for example, water (including carbonated water) and primary additives to make a tea flavored
15 beverage.

Regarding the primary additives which may be used in this invention, such primary additives include at least one member selected from the group consisting of tea, tea flavor and mixtures thereof. The tea which may be used in this
20 invention include liquid and powdered tea. Tea flavor is defined to include natural and artificial tea flavor. Other additives which may be used in the beverage syrups of this invention include natural and artificial non-tea flavor additives including concentrates thereof. Such non-tea flavor additives include those which have the taste of strawberry, raspberry, cherry, peach, mango,
25 pineapple, orange, tangerine, orange tangerine, kiwi, lemon, blueberry, mixtures thereof and the like. Also, the non-tea flavor additives may also actually comprise fruit.

There is no limitation with respect to the amount of high fructose corn
30 syrup that may be used in this invention other than that the amount used results in a beverage syrup that can be easily mixed with water (including carbonated water) and additives to make a tea flavored beverage. Typically, however, the amount of high fructose corn syrup used in this invention is from about 30.0

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- 5 wt.% to about 85 wt. %, based on total weight of the beverage syrup, and including all ranges subsumed therein.

As to the amount of natural and artificial non-tea flavor additives that may be used in this invention, such flavor additives typically make up from about 0.5
10 wt. % to about 7.5 wt. %, and preferably, from about 0.6 wt. % to about 6.0 wt.%, and most preferably from about 0.7 wt. % to about 3.0 wt. % of the beverage syrup, based on total weight of the beverage syrup, and including all ranges subsumed therein.

- 15 When preparing the beverage syrup of this invention, the ingredients (e.g., corn syrup, primary additives) are mixed via conventional means in order to prepare a substantially homogeneous mixture. It is also noted that secondary additives like spices (e.g., cinnamon and nutmeg), honey, as well as chocolate and flavor granules (or particles) may be added to the beverage syrup of this
20 invention. The amount of secondary additives used varies according to taste preferences. Preferably, however, the secondary additives do not dominate the flavor of the resulting beverage syrup.

- Further, additional components may optionally be added to the beverage
25 syrup of this invention. Such additional components include antifoaming agents and food colorings. The additional components, when added to the beverage syrup of this invention, do not, collectively, make up more than about 0.5 wt. % of the total weight of the beverage syrup. Moreover, if desired, the beverage syrup of this invention may be refrigerated. Since, however, refrigeration is not
30 required, it is preferred that preservatives, like potassium sorbate and/or sodium benzoate are added (typically no more than about 0.3 wt. % of the total weight of the beverage syrup).

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5 When preparing a beverage from the beverage syrup of this invention, the beverage syrup is dispensed from a dispensing device into, for example, a glass or cup and water is added (or vice versa). The beverage syrup and water are mixed either by hand or with an electronic mixing device like a single serving blender. The mixing is maintained until a substantially homogeneous tea
10 flavored beverage is made, often no more than about a few minutes.

 As to the amount of beverage syrup combined with the water to make the tea flavored beverage of this invention, such an amount is not limited and may be varied according to the personal preferences of the individual consumer.
15 Often, however, the resulting tea flavored beverage is made with at least about 75% by weight water, and preferably at least about 80% by weight water, and most preferably, at least about 85% by weight water, based on total weight of the tea flavored beverage. Regarding the water used to make the tea flavored beverage, the water may be carbonated, and if desired, a portion of the water
20 may be added to the beverage syrup in the form of ice. It is particularly noted herein that a portion or all of the water used to make the tea flavored beverages of this invention may be replaced with milk.

 Moreover, it is within the scope of this invention to garnish the resulting
25 tea flavored beverages with, for example, additional spices, chocolate, minced or diced fruits, and combinations thereof.

 When dispensing the actual beverage syrup, a beverage syrup dispensing device such as those depicted in Figures 1 a-c is employed. The beverage syrup
30 dispensing device 10 has a first portion 12 and a second portion 14. When the first portion 12 fills with beverage syrup 16, the second portion 14 remains closed. As the beverage syrup 16 is dispensed from the first portion 12 (for example, into a glass), the first portion 12 shuts after emptying and the second

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- 5 portion 14 opens and fills with a predetermined amount of beverage syrup 16 to be used in the next tea flavored beverage (not shown) to be prepared.

When marketing and/or selling the tea flavored beverage of this invention, any of the well known conventional business techniques may be used. It is
10 preferred, however, that inline or kiosk bar arrangements, such as those depicted in Figures 2 a-c and 3 a-c, are used. Such bar arrangements are mobile and capable of being moved by an individual in a variety of locations within, for example, a shopping mall. The mobile inline and kiosk tea bar arrangements allow for easy cleaning, accessibility, and refilling. Preferably, such bar
15 arrangements have a menu 18, and an array of syrup dispensing devices 20 that are centrally located. The dispensing devices 20 are preferably arranged in a central staggered formation 20b. In addition to the dispensing devices, such bar arrangements may also comprise advertising signs 22, product pictures 24 as well as a tea brewer 26, water tap 28, refrigerator 30, and at least one insulated
20 dispenser 32 for hot beverages.

The following examples are provided to further illustrate and facilitate an understanding of the present invention. Therefore, for example, the weight percents set forth in the examples may be varied from about ± 1 to about ± 50
25 wt. %, and preferably, from about ± 2 to about ± 25 wt. %, and most preferably, from about ± 3 to about ± 10 wt. %, including all ranges subsumed therein. Moreover, it is within the scope of this invention to make ingredient modifications; for example, a strawberry concentrate can be replaced with a kiwi, lemon or blueberry concentrate.

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All beverage syrups of this invention are preferably pasteurized at about 75°C for about one minute.

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EXAMPLE I

Ingredient	% wt.
High fructose corn syrup	54.70
Water	33.79
Honey	7.52
Tea Powder	1.64
Chai tea type flavor, natural	1.47
Citric acid anhydrous	0.49
Cardamon Ground	0.16
Sodium benzoate	0.10
Potassium sorbate	0.10
Silicone antifoam	0.02

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The ingredients were mixed, via a conventional mixer, to produce a Chai tea flavored beverage syrup.

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EXAMPLE III

Ingredient	% wt.
High fructose corn syrup	76.28
Water	16.30
Raspberry juice frozen concentrate	4.65
Citric acid anhydrous	1.18
Tea powder	0.72
Raspberry flavor, artificial	0.27
Raspberry flavor, natural	0.27
Carrageenan gum	0.09
Sucrose, common density	0.09
Sodium benzoate	0.08
Potassium sorbate	0.08
Silicone antifoam	0.02
FD&C Red #40	0.001

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The resulting red raspberry tea beverage syrup was produced in a manner similar to the one used to make the beverage syrup of Example I.

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EXAMPLE IV

Ingredient	% wt.
High fructose corn syrup	78.89
Water	14.32
Peach juice frozen concentrate	4.50
Citric acid anhydrous	0.98
Natural brewed tea	0.73
Peach flavor	0.27
Peach granules	0.14
Sodium benzoate	0.08
Potassium sorbate	0.08
Silicone antifoam	0.02
Color yellow #6	0.005
FD&C Red #40	0.005

10 The resulting peach tea beverage syrup was produced in a manner similar to the one used to make the beverage syrup of Example I.

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EXAMPLE II

Ingredient	% wt.
High fructose corn syrup	82.91
Water	11.03
Strawberry frozen concentrate	3.50
Tea Powder	0.80
Strawberry flavor	0.45
Malic acid, anhydrous	0.40
Strawberry flavor, natural and artificial	0.35
Sodium benzoate	0.08
Potassium sorbate	0.08
Silicone antifoam	0.02
FD&C Red #40	0.004

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The resulting strawberry tea beverage syrup was produced in a manner similar to the one used to make the beverage syrup of Example I.

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EXAMPLE V

Ingredient	% wt.
High fructose corn syrup	77.67
Water	18.79
Citric acid anhydrous	1.08
Mango juice concentrate frozen	1.002
Natural brewed tea (unaromatized)	0.73
Mango pineapple orange type granules	0.15
Strawberry flavor	0.15
Peach flavor	0.10
Sodium benzoate	0.08
Potassium sorbate	0.08
Strawberry flavor, natural & artificial	0.07
Orange tangerine flavor, natural	0.05
Peach granules	0.05
Silicone antifoam	0.02
Color yellow #6	0.004

- 10 The resulting orange mango tea beverage syrup was produced in a manner similar to the one used to make the beverage syrup of Example I.

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EXAMPLE VI

10 A tea flavored beverage was prepared by mixing, in a 14 oz. cup, 2.0 fl. oz. of the chai tea flavored beverage syrup of Example I with 9.5 fl. oz of carbonated water and ice (about 33% of the volume of the 14 oz. cup). The mixing was achieved with a whisk, and the resulting tea flavored beverage was a delicious chai tea flavored beverage.

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EXAMPLE VII

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A tea flavored beverage was prepared by mixing 3.0 fl. oz of the strawberry tea syrup of Example II with 2.0 fl. oz. of carbonated water and about 1.5 cups of ice. The contents were stirred with a whisk and the resulting tea flavored beverage was a delicious strawberry flavored beverage.

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EXAMPLE VIII

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A tea flavored beverage was prepared in a manner similar to the one described in Example VII except that one teaspoon, about 0.22 fl. oz., of chocolate syrup was added.

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EXAMPLE IX

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A tea flavored beverage was prepared in a manner similar to the one described in Example VIII except that the resulting beverage was garnished with minced strawberry and sprinkled with ground cinnamon.

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5 **What is claimed is:**

1. A beverage syrup that does not require refrigeration, the beverage syrup comprising tea, tea flavor or both.

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2. The beverage syrup according to claim 1 wherein the beverage syrup comprises at least about 30% to about 85% by weight corn syrup; and at least about 1% to about 70% by weight water.

15 3. The beverage syrup according to claim 1 wherein the beverage syrup further comprises non-tea flavor additives.

4. The beverage syrup according to claim 3 wherein the non-tea flavor additives are selected from the group consisting of strawberry, raspberry, cherry,
20 peach, mango, pineapple, orange, tangerine, orange tangerine, kiwi, lemon, blueberry flavor additives and mixtures thereof.

5. The beverage syrup according to claim 1 wherein the beverage syrup further comprises a spice, honey, flavor granules, chocolate or mixtures thereof.

25

6. A method for making a beverage comprising tea, tea flavor, or both, the method comprising the steps of:

(a) dispensing a syrup from a dispensing device, the syrup comprising tea, tea flavor or both; and

30 (b) adding water to the syrup,

wherein the dispensing device can be set to dispense a set amount of syrup.

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7. A beverage comprising a homogeneous mixture comprising:
- (a) at least about 75% by weight corn syrup;
 - (b) water or milk or a mixture thereof; and
 - (c) at least one additive selected from the group consisting of tea, tea
- 10 flavor and a mixture of tea and tea flavor.

8. The beverage according to claim 7 wherein the beverage further comprises chocolate, flavor granules, honey, minced fruit.

- 15 9. The beverage according to claim 7 wherein the beverage further comprises a non-tea flavor additive selected from the group consisting of a strawberry, raspberry, cherry, peach, mango, pineapple, orange, tangerine, kiwi, lemon, blueberry flavor additive and mixtures thereof.

- 20 10. A kiosk bar arrangement comprising:
- (a) a visible menu;
 - (b) a centrally located array of tea or tea flavor syrup dispensing devices;
 - (c) visible product pictures; and
 - (d) at least one item selected from the group consisting of a tea brewer,
- 25 water tap, refrigerator and an insulated hot beverage dispenser.

11. The kiosk bar arrangement according to claim 10 wherein the dispensing devices are staggered.

UNSCANNABLE ITEM

RECEIVED WITH THIS APPLICATION

(ITEM ON THE 10TH FLOOR ZONE 5 IN THE FILE PREPARATION SECTION)

2321956

DOCUMENT REÇU AVEC CETTE DEMANDE

NE POUVANT ÊTRE BALAYÉ

(DOCUMENT AU 10 IÈME ÉTAGE AIRE 5 DANS LA SECTION DE LA
PRÉPARATION DES DOSSIERS)

<http://patents.nestec.ch/RapidDocuments/Nestle/PDF/CA2321956A1.PDF>

PA - (UNIL) UNILEVER PLC

PN - CA2321956

TI - **Beverage** syrup having **tea** or **tea flavor** which can be used to make variety of **tea flavored beverages** and which does not require refrigeration

NOVELTY - A **beverage** syrup that does not require refrigeration and which comprises **tea, tea flavor** or both.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) the manufacture of the **beverage** comprising:

(a) **dispensing** a syrup from a **dispensing** device, the syrup comprising **tea, tea flavor** or both, and

(b) adding water to the syrup, where the **dispensing** device can be set to **dispense** a set amount of syrup; and

(2) a kiosk bar arrangement comprising, a visible menu, a centrally located array of **tea** or **tea flavor** syrup

dispensing devices, visible product pictures, and at least one item selected from a **tea** brewer, water tap, refrigerator and an insulated hot **beverage dispenser**.

USE - A **tea** or **tea flavored beverage** syrup is provided, it may be used to make a variety of **tea flavored beverages**.

ADVANTAGE - The syrup does not require refrigeration. (Dwg.0/0)

PR - 1999US-P156865 19990930

???<http://patents.nestec.ch/RapidDocuments/Nestle/PDF/US5676041.pdf>
coffee

<http://patents.nestec.ch/RapidDocuments/Nestle/PDF/US4539216.pdf>

Process for preparing tea products

THE PROCTER & GAMBLE

flavorings can be optionnaly added to the concentrate, the tea product prepared by this process is shelf stable in flavor and clarity

JAP: 2000-316475 21.11.2000

51)Int.Cl. A23F 3/14, A23F 3/18

(54) **TEA EXTRACT LIQUID STABLE DURING LONG PRESERVATION PERIOD, AND ITS PRODUCTION**

(21)Application number : 11-132596 (71)Applicant : **UNICAFE INC**

(22)Date of filing : 13.05.1999 (72)Inventor : **TAKANO TETSUO**
KANEKO RIEKO

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain the subject tea extract liquid, prevented from insolubilization resulting from heating or freezing of protein or a polysaccharide and also from agglutination with tannin while being preserved for a prolonged period, excellent in flavor, and of visually high commercial value, by including carageenan. SOLUTION: This extract liquid, containing soluble solids (Bx) preferably at 0.2 to 18 wt.% and of straight type to be directly drunk or of concentrated type to be drunk after being diluted, is obtained by extracting tea leaves with hot water and incorporating a carageenan therein preferably at 0.0005 to 0.3 wt.%. The carageenan is preferably of copper type and contains carageenan at 30 to 100 wt.%. Stability of the extract liquid during preservation for a prolonged periods can be enhanced preferably by cooling

the liquid to remove turbid components or incorporating tannase before carageenan is added.

LEGAL STATUS

[Date of request for examination] 13.05.1999

[Date of sending the examiner's decision of rejection] 18.07.2000

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 3511164

[Date of registration] 16.01.2004

[Number of appeal against examiner's decision of rejection] 2000-12259

[Date of requesting appeal against examiner's decision of rejection] 07.08.2000

[Date of extinction of right]

AN - 1997-10T0013

TI - Effect of additives on the **stability** of mango **aroma concentrate** during storage.

AU - Ramteke, R. S.; Eipeson, W. E.

AD - Dep. of Fruit & Veg. Tech., CFTRI, Mysore 570 013, India

SO - Journal of Food Science and Technology, India, 34 (3) 195-199, 1997, [11 ref.]

NU - ISSN 0022-1155

DT - Article

CC - T (Additives, spices and condiments)

IT - storage; temp.; stability; mangoes; aroma concentrates; additives; AROMA CONCENTRATES; STORAGE; TEMPERATURE; STABILITY; ADDITIVES; MANGOES

ST - ADDITIVES; PROCESSED FOODS; FRUITS SPECIFIC; STORAGE; PHYSICAL PROPERTIES

AB - The storage behaviour of **aroma concentrates** from 'Alphonso' mangoes was studied at room temperature (26-28 deg. C), 2 deg. C and -18 deg. C in the presence and absence of certain additives (glucose + glucose oxidase + catalase system, sodium sulphite and ascorbic acid). It was noticed that **aroma** constituents underwent changes during two months of storage at room temperature, leading to loss of the typical **aroma** profile in the product without additives. Carbonyls, alcohols and oxygenated terpenes showed lower values during storage. Even in the presence of additives **stability** was extended only by a month. In contrast to this, **aroma concentrates** stored at 2 deg. C were **stable** for a period of 6 months without additives and up to 10 months with additives. At -18 deg. C, they were **stable** for 12 months even without additives. The results were substantiated by the evaluation of ready-to-serve **beverages** prepared from stripped juice **concentrates incorporated** with 100% of the respective stored **aroma** samples.